



20 parts are clamped per tower. This results in a time saving of 189 minutes per tower!

URMA EXPERIENCE

Keeping the perspective with reaming: Process time reduced by 90%

With the company Franz Kuenzli AG in Wangen b. Duebendorf in Switzerland, we have already been able to realize some interesting reaming applications. These applications have been manufactured in a wide variety of materials such as aluminum, steel, copper, etc. In the present application, the process time could be reduced by 90% with the help of the URMA RX medium.

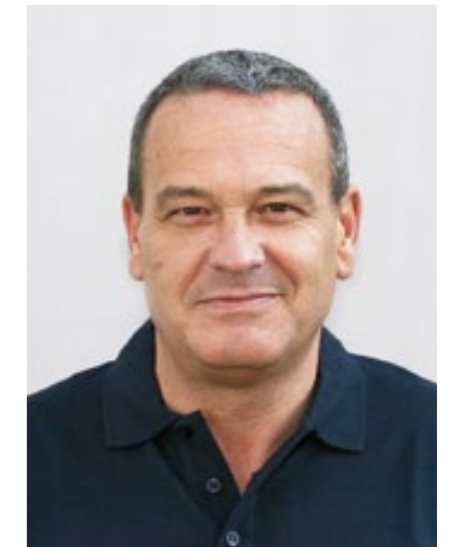
In a request from Mr. Krawinkel to optimize a running component made of PMMA (acrylic glass), we were asked to optimize the roughing of a bore $\varnothing 16.5\text{mm}$ to $\varnothing 17.0\text{mm}$ using a high performance reamer. The process for producing a measuring cylinder for laboratory use was previously as follows: drilling $\varnothing 16.5\text{mm}$ / roughing $\varnothing 17.0\text{mm}$ / finishing (finishing) to $\varnothing 17.3\text{mm}$ using an MKD tipped insert. The tool was assembled with standard components from the URMA RX medium Reaming System and equipped with a coated carbide insert. When running in the new URMA reaming tool, we quickly realized that we could not only reduce the machining time many times over, but that the surface quality of the bore was also significantly improved.



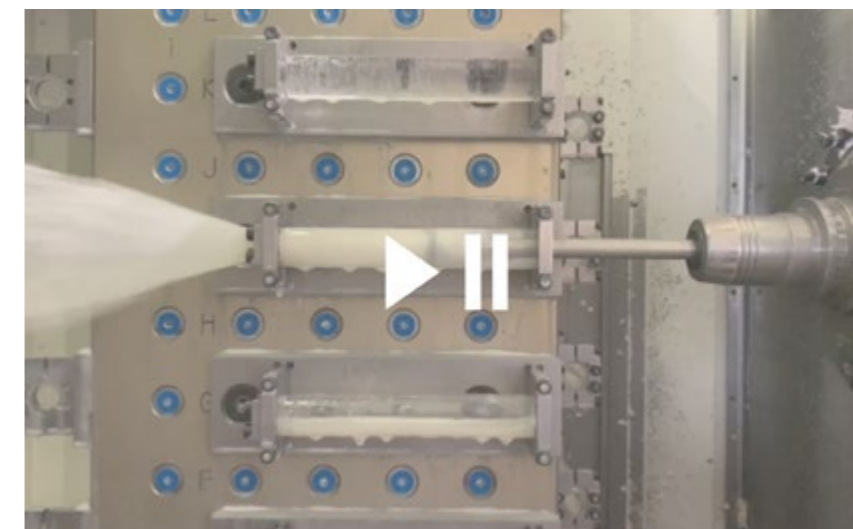
Chip formation during reaming

“By using the URMA reamer, we could reduce the processing time of the component by one third. This is simply ingenious!”

Klaus Krawinkel, Franz Künzli AG



Klaus Krawinkel, Production Manager, Franz Kuenzli AG



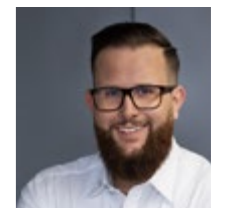
In this video, the impressive differences between turning (old process) and reaming (new process) immediately become clear.



Finished reamed component - Ra 0.12 / Rz 1.05

The surface could be improved from boring (Ra 0.38-0.42 μm / Rz 2.1-2.3 μm) to reaming (Ra 0.08-0.12 μm / Rz 0.8-1.0 μm). Without further ado, the diameter of the reamer was adjusted to the finished diameter and integrated into the process. This step eliminated the need for roughing and reduced the overall process time by 90%. In addition to the savings in machining time, the optimization is also characterized by the process reliability on the diameter and the improved surface roughness, which also halves the time required for subsequent polishing of the workpieces.

Do you have similar challenges? We would be happy to take on the task!



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